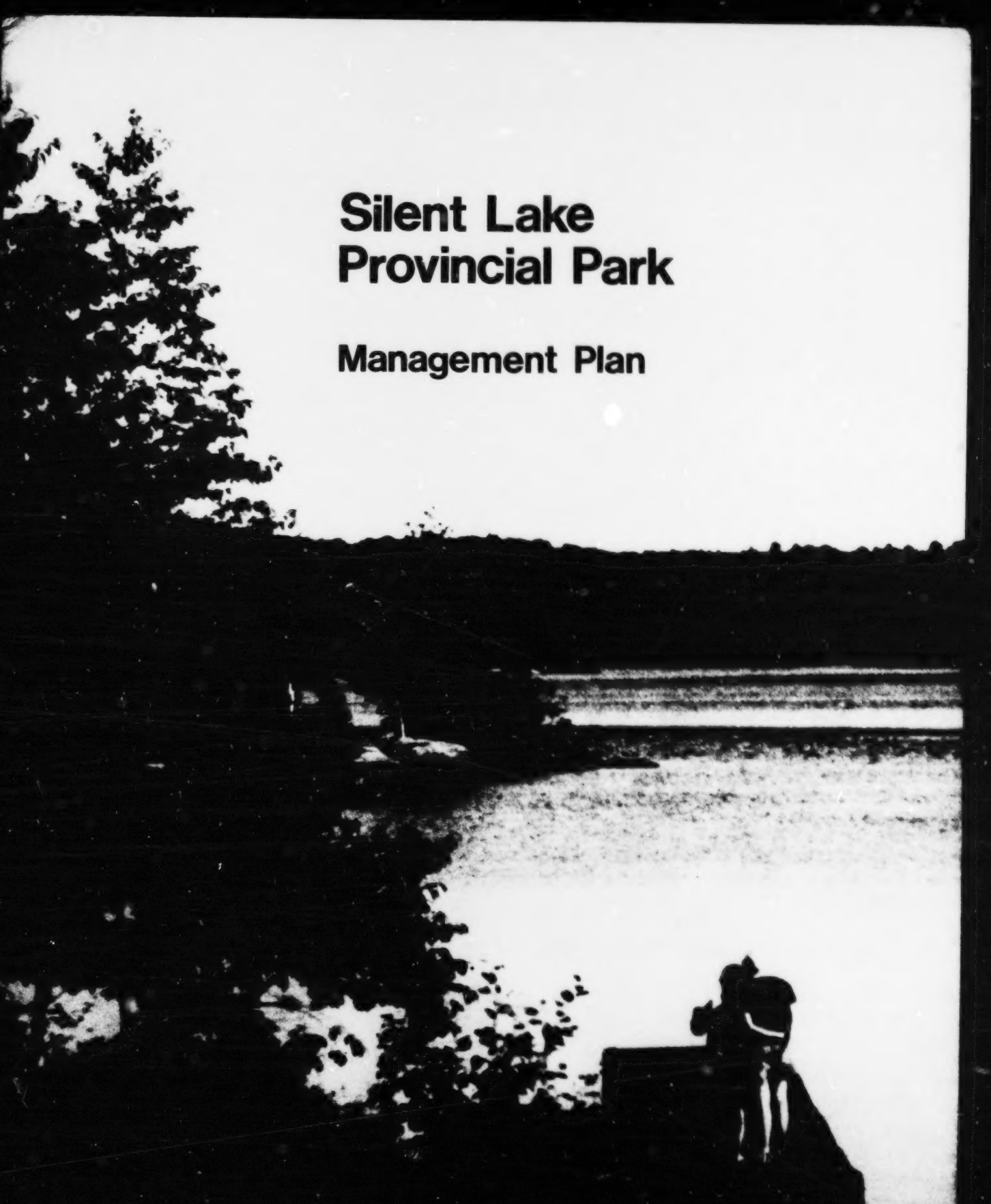
Silent Lake Provincial Park

Management Plan



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PARK MANAGEMENT PLANNING SERIES

SILENT LAKE PROVINCIAL PARK
MANAGEMENT PLAN

MNR 3481

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APPROVAL STATEMENT

Silent Lake Provincial Park was established in 1975 to provide outstanding outdoor recreation opportunities in the popular Haliburton Tourist area. In developing the Park, attention was given to preserving the natural values of the area and retaining its tranquility and solitude. The Park offers both recreational campers and wilderness enthusiasts an unspoiled environment together with easy access and modern facilities. Silent Lake Provincial Park provides traditional drive-in campsites as well as walk-in sites. In winter cross-country skiing and ice fishing can be enjoyed by the public.

"We are pleased to approve the Silent Lake Provincial Park Management Plan, as official policy for the management and development of this park. The plan reflects this Ministry's intent to protect natural and cultural features of Silent Lake Park and maintain and develop high quality opportunities for outdoor recreation and heritage appreciation for both residents of Ontario and visitors to the Province."

R. M. Christie
Regional Director
Algonquin Region

Director Parks and
Recreational Areas Branch

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1.0 INTRODUCTION

Silent Lake Provincial Park is located in the southern portion of Cardiff Township, County of Haliburton. Highway 28 runs along its north and northwest boundary providing good road access from the large urban centres of Peterborough, Oshawa and Toronto to the south (Figure 1). The Park lies 80 kilometres north of Peterborough, 216 kilometres northeast of Toronto and 24 kilometres south of Bancroft.

The Park, a Natural Environment class park, covers an area of 1,450 hectares offering a year - round threshold wilderness experience. The 125 hectare lake known as Silent Lake has pine studded rocky shores and possesses the solitude of a northern lake. Construction initiated on Silent Lake Provincial Park in 1966 and continued until 1978. The Park was first opened to the public in the summer of 1975, but was not put into regulation until 1977.

All development has taken place in the northern portion of the Park leaving the remainder, approximately 60 percent of the Park area, in a natural state. The Park contains 167 campsites of which 45 are walk-in and 122 are car campsites divided into three separate camping areas and two campgrounds respectively. Each of the three walk-in camping areas contains vault toilets, water faucets and a central parking lot. Both campgrounds are serviced by vault toilets, a centrally located comfort station containing flush toilets, showers and laundry facilities, centralized garbage facilities and water faucets. All of the camping facilities are located in the northeastern corner of the Park; the campsites developed with privacy and natural setting as the criteria. A central wood yard provides firewood needs.

A small day use area located at the north end of Silent Lake contains a parking lot, floating docks, vault toilets, and a swimming beach.

The maintenance area east of the campgrounds consists of a staff-quarters, a four-bay maintenance building and superintendent's office, fuel storage building, and a four-bay cold storage building.

Activities offered in the Park include lake trout, large and smallmouth bass fishing, canoeing (motorboat ban), 11 kilometres of hiking trails and 40 kilometres of cross-country ski trails.

Silent Lake Provincial Park is located within the Grenville Province of the Precambrian Shield, 48 kilometres north of its junction with younger sedimentary rocks of southern Ontario. Good examples of glacial abrasion is found on the granitic rocks along the shoreline of Silent Lake. Bedrock geology of this area is complex and several important mineral deposits, especially uranium, are found immediately north of the Park. Quartz-sillimanite modules found in the Park's bedrock are unique to Ontario and the best developed in Canada.

Topography is broken and rolling, and in places precipitous, especially in the vicinity of the shore at the southern end of the lake and in some higher backshore areas. Swamps and wetlands are common. Ecologically the area lies in the Great Lakes - St. Lawrence Mixed Forest Zone. Historically the Park area has been selectively cut numerous times, though never clear-cut or completely burnt over. This can be shown clearly by the fact that today some 95 percent of the Park area is forested.

The general climate of the Park area is classed as typical Humic Continental with warm summers and cold snowy winters, ideal for year-round outdoor recreation activities.

2.0 SUMMARY OF SIGNIFICANT ISSUES

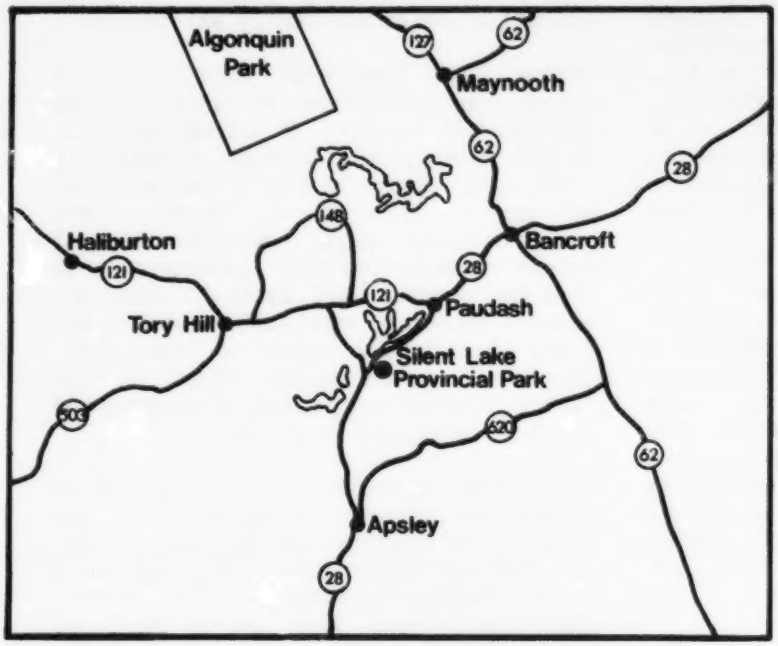
Silent Lake Provincial Park's development followed guidelines set out in site and development plans and a preliminary management plan. For this reason no major problems in design have occurred.

However, four areas require improvement:

1. A permanent structure combining a summer picnic shelter and winter warm-up shack is needed to provide day users protection from inclement or unexpected weather conditions.

Figure 1

REGIONAL CONTEXT



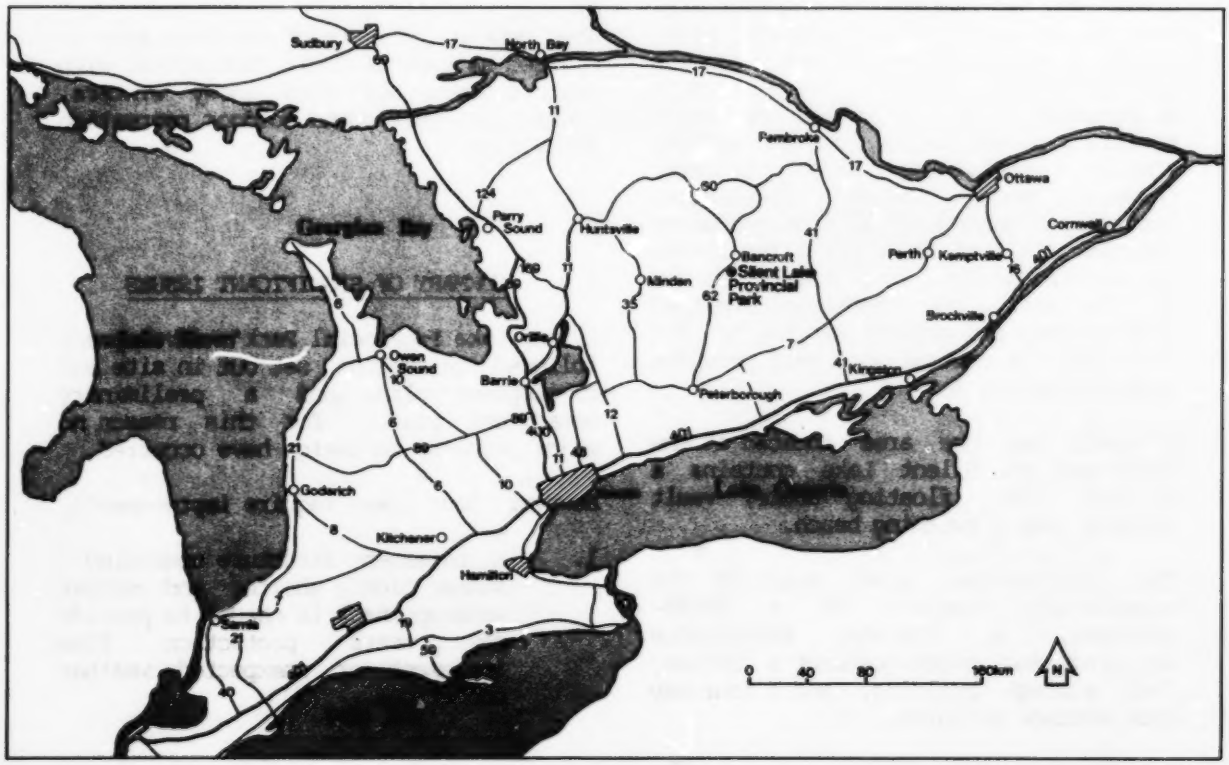


Figure 2

EXISTING DEVELOPMENT (summer)

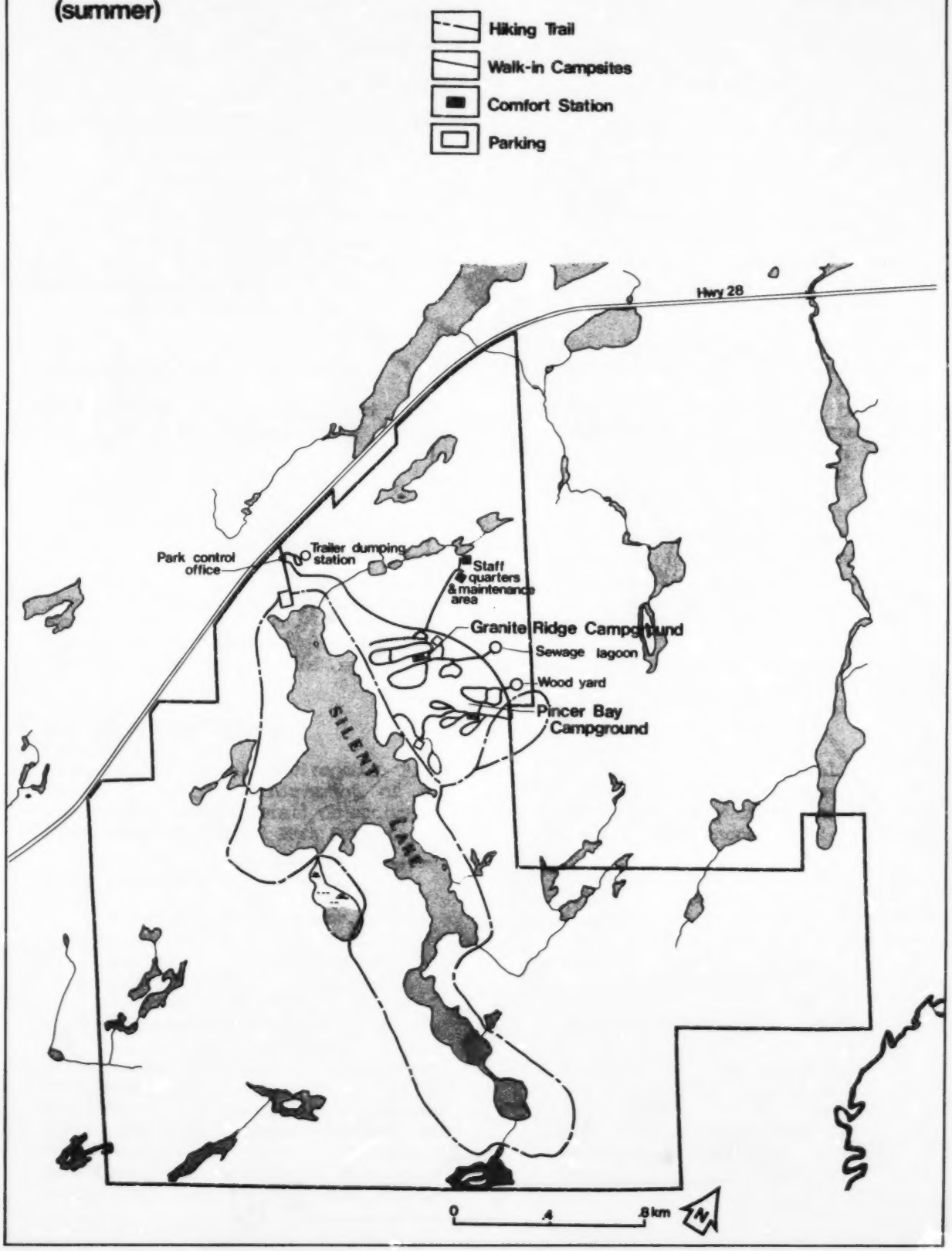
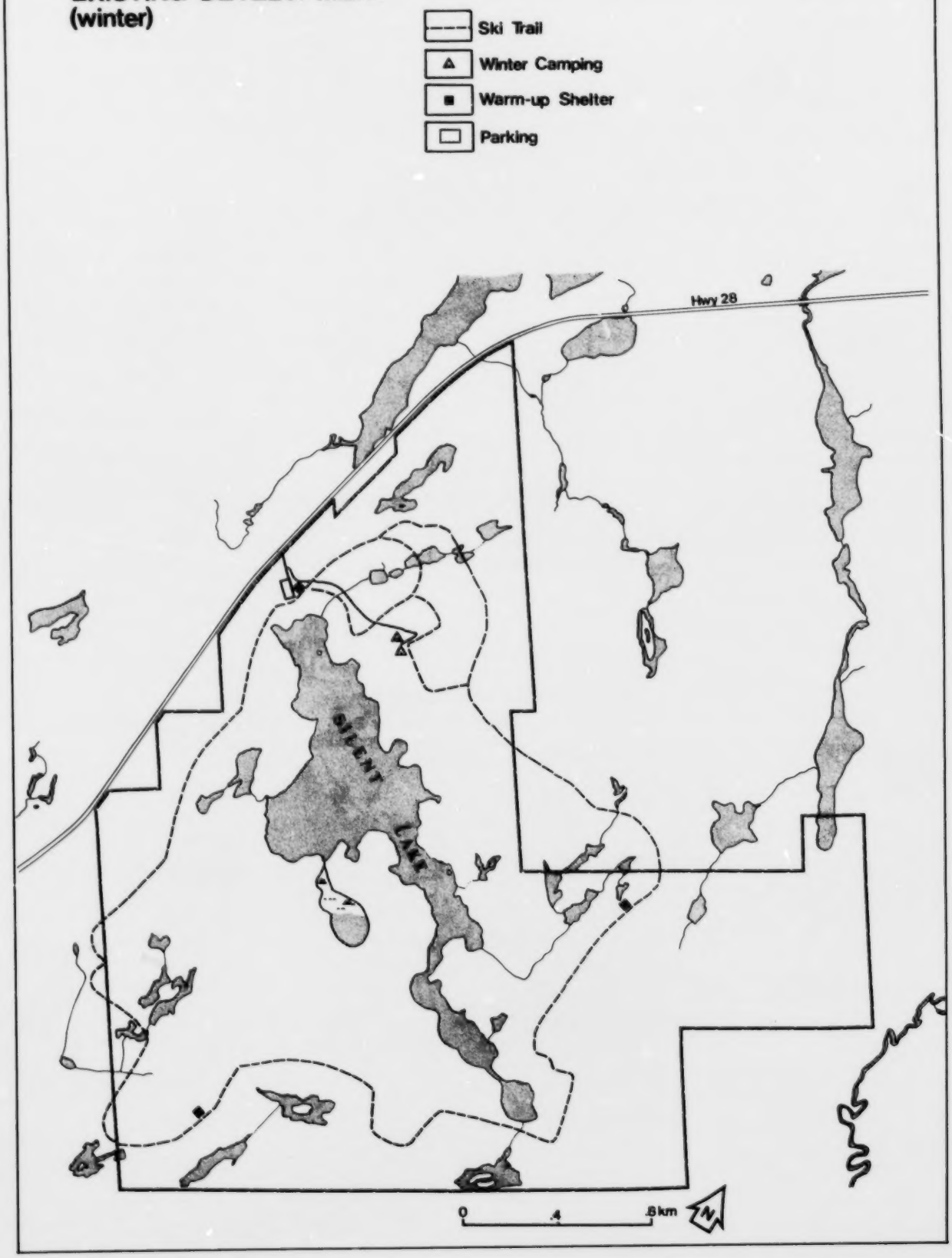


Figure 3

EXISTING DEVELOPMENT (winter)



2. The walk-in campsites located adjacent to Granite Ridge Campground have proved inappropriate. Consideration should be given to converting some of these campsites into a small car campground.

3. With present winter fishing pressure and the noticeable decrease in fishing success, a fish management plan for the Park is required.

4. To meet future demands for car camping, a third campground should be considered and contain facilities similar to those in the existing campgrounds.

3.0 CLASSIFICATION

Silent Lake Provincial Park will continue to be classed as a Natural Environment Park.

4.0 PARK GOAL

Silent Lake Provincial Park will provide a variety of quality, low intensity threshold natural environment recreation experiences on a year 'round basis, compatible with Provincial Park Policy, the park resources and land capability.

5.0 PARK OBJECTIVES

Provincial Natural Environment Parks contribute to the achievement of all four established overall objectives of the Ontario Provincial Park System.

5.1 Protection

To protect a system of provincially significant natural environments incorporating natural, cultural and recreational features.

Silent Lake Park is the only Natural Environment Park in the Bancroft District. Provincially significant earth and life science features are found within the Park. By ways of development and management strategies, significant earth and life science features such as the quartz sillimanite nodules and the upland and lowland habitats of the three other nature reserves will be protected.

5.2 Recreation

To provide day use opportunities in areas of recreation potential associated with natural environments.

Silent Lake will provide opportunities for hiking, boating, fishing, swimming, winter cross-country skiing and other healthful and enjoyable outdoor activities on a seasonal basis.

The Park's existing recreation opportunities (7,000 picnicking, 10,000 swimming, 36,000 camping opportunities) contribute to the achievement of the recreation target as presented in the Bancroft District Land Use Guidelines.

To provide facility-based camping opportunities in natural environments and in associated areas of outstanding recreational potential.

Silent Lake will be developed and operated to provide visitors contact with fellow recreationists in a balanced, natural environment.

To provide in the natural environment opportunities for back-country travel and camping experiences.

The recreation experience will be characterized by solitude, challenge, and personal integration with nature derived from relatively unmanipulated landscapes of the Park.

5.3 Heritage Appreciation

To provide opportunities for unstructured individual exploration and appreciation of the natural environment heritage of Ontario.

Individual exploration and appreciation will be encouraged to the greatest extent compatible with and complimentary to preservation of natural environments, earth and life science features and historical resources of the Park.

> To provide opportunities for exploration and appreciation of natural and cultural environments through interpretation and education based upon the character and significance of Natural Environment Parks.

Silent Lake Park will provide interpretive and educational programs which reflect the diversity of features and resources of a natural environment park to be directed to the widest possible user spectrum.

5.4 Tourism Objective

> To provide Ontario residents and out-of-province visitors with opportunities to discover and experience distinctive regions of the Province.

Silent Lake Park will provide day use and camping opportunities for travellers through Ontario, as well as destination camping opportunities for those attracted from considerable distances.

Silent Lake's existence in the tourism industry generates $856,256. worth of expenditures and supports 16 jobs in Ontario's economy.

6.0 ZONING

Land within a Natural Environment Park is zoned to recognize the significance of resources, management implications and capacity for use.

Natural Environment Parks always include Natural Environment and Development Zones, and may also include Wilderness, Nature Reserve, Historical and Access Zones. Silent Lake Park has three zones — Development, Natural Environment and Nature Reserve.

6.1 Nature Reserve Zones (233.8 ha)

These zones include significant earth and life science features which require protection distinct from that in adjacent zones.

Development is limited to trails, necessary signs, minimal interpretive facilities for research and management where such development will not harm the natural values to be protected.

There are four Nature Reserves in Silent Lake Park (Figure 3).

NR-1 The Third Silent Lake

This zone (50 hectares) surrounds the Third Silent Lake at the south end of the Park. It contains a wide variety of upland and lowland habitats which are of high representative value. A total of 16 vegetative communities have been identified here. The most significant of these are the bogs and upland forests.

The sphagnum bogs contain a number of rare and unusual species. These include wild orchids, such as the grass pink and rose pogonia, as well as a rare sedge, bog bean and chain fern.

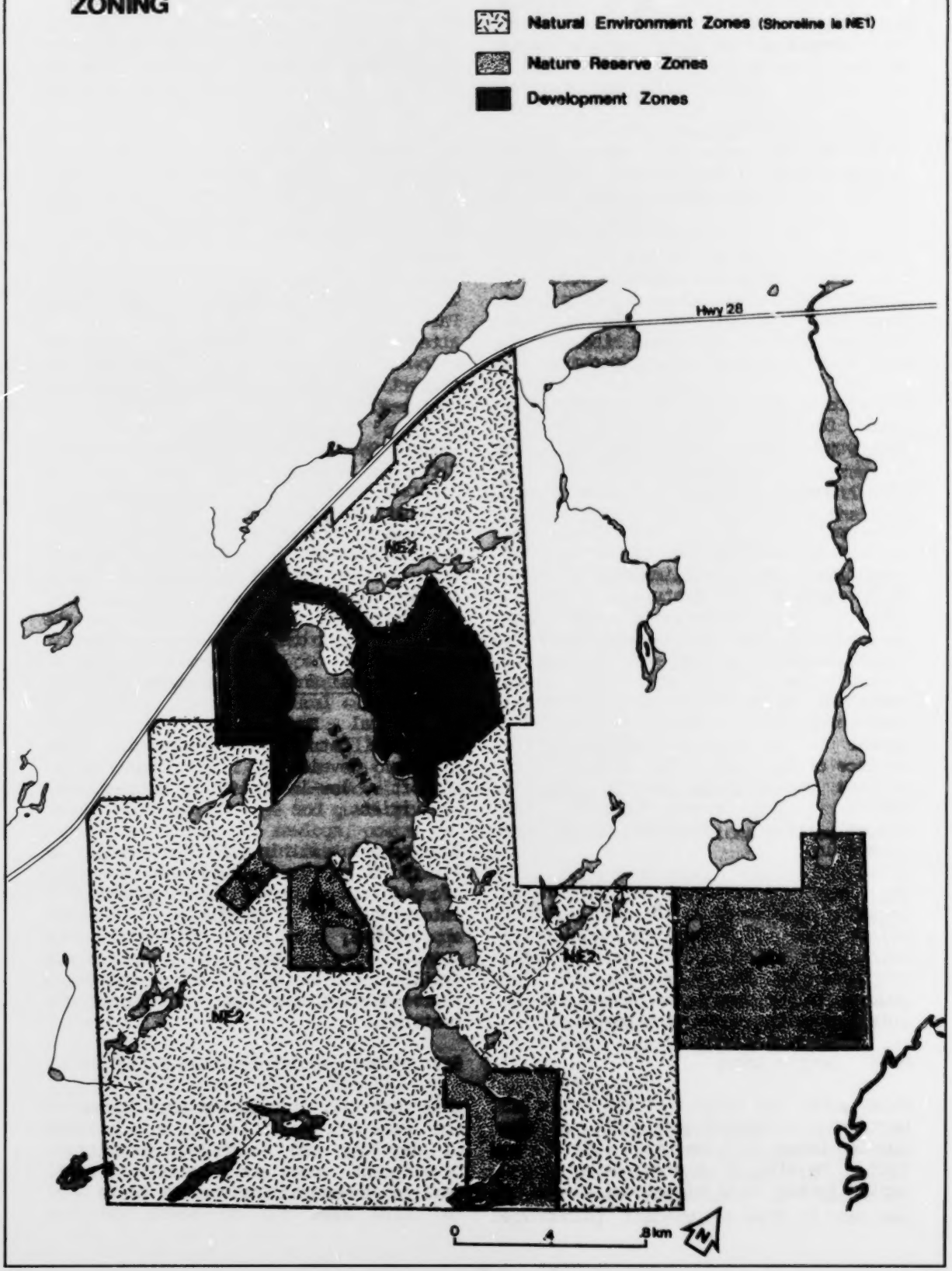
The upland forest surrounding the Third Silent Lake is dominated by stands of sugar maple and white birch. A variety of interesting southern species occur here, including spring wildflowers such as hepatica, toothwort and blue cohash, as well as Christmas fern and rattlesnake fern.

The zone also provides good wildlife habitat. A pair of common loons nest on the lake. The upland forests provide nesting areas for several species of wood warblers, and the wetlands for yellow throats, great blue herons and a number of amphibians.

Adjacent to the third Silent Lake to the west, is an extensive wetland complex including the remainder of Quiet Lake, that should be surveyed, assessed and seriously considered for incorporation into NR1. This area includes significant southern species such as jack-in-the-pulpit, Christmas fern and moneywort. These species alone support the status of this area as a nature reserve zone.

Figure 4

ZONING



NR-2 Lost Lake Bog

Lost Lake is a small lake (36 hectares) with a shoreline ringed by a sphagnum bog mat. Both the lake and bog environments are of high representative value. The bog mat, which is dominated by larch and leatherleaf, supports an interesting flora. A number of uncommon species occur here, such as chain fern, twig rush, bog bean and rose pagonia orchid. Typical bog species, including sundew and pitcher plant, occur here as well.

Wildlife is common in the area. Lost Lake itself supports a population of beaver and otter. Dead standing trees near the edge of the lake provide nesting habitat for great blue herons, wood ducks and pileated woodpeckers.

The site is quite fragile, and should be used for only very limited on-site interpretation.

NR-3 Quartz Sillimanite Nodules

This small zone of 2.8 hectares contains one of two outcroppings of provincially significant quartz sillimanite modules. This earth science feature is unique in Ontario. They are white to light grey in colour and contrast strongly with the bright reddish orange of the matrix rock. The nodules are much more resistant to weathering than the matrix rock which contains them. The nodules appear to be bisquits sitting on the surface of the rock. The size of the nodules varies from 5mm to 30cm in length. The largest ones are the biggest ever described in the literature.

The best nodules outcrop is in an existing campground on the east side of Silent Lake. Because the nodules are more resistant than the matrix rock, they can be easily broken off. The nodules in the campground should not be interpreted for protection purposes.

NR-4 Lowrie Lakes

This zone, the largest of the four (145 hectares) is located just south of the Lowrie Lakes on the east side of the Park. The site is dominated by sugar maple forest, with occasional stands of white birch in the lowlands. Intermittent streams in the valleys support small black ash swamps.

The valleys are composed of 25 different fern species, including narrow-leaved spleenwort, a fern which is rare in Ontario. This is the only known location of this fern in Algonquin Region.

A rare amphibian, the four-toed salamander, also occurs here. This species is seldom encountered in Ontario and is only the second area in this region where this salamander has been observed.

This area is a prominent asset to the Park and will be treated with special attention. No development will be allowed for the sole purpose of protecting this area's significant features.

Nature Reserves 1, 3 and 4 would be difficult to locate due to the lack of natural boundaries. These zones will be surveyed and flagged, promoting public awareness of these sensitive areas. Nature Reserve 2 incorporates natural features to facilitate ground location. Signage and/or a park leaflet will provide ample information promoting the sensitivity of these areas.

6.2 Natural Environment Zones (1020 ha)

A Natural Environment Zone includes aesthetic natural landscapes in which minimum development is required to support low-intensity recreational activities.

Development within the Park will be limited to portages, trails and necessary signs for route identification, minimal interpretive facilities where appropriate, and basic facilities to support low-intensity recreation facilities, as well as protecting representative geology and life science features.

6.3 Development Zones (196.3 ha)

This zone will provide the main access to the Park and facilities for a wide range of day use and camping activities. Development zones are a relatively small portion of Natural Environment parks.

There is one development zone in Silent Lake Park with four sections:

D 1 - park entrance road, park control office, trailer sanitation station, day use area and main park road providing access to the campgrounds and park maintenance buildings.

D 2 - park maintenance area, staff quarters, proposed park office, sewage lagoon and firewood areas.

D 3 - Granite Ridge and Pincer Bay Campgrounds.

D 4 - proposed campground on the west side of Silent Lake.

7.0 RESOURCE MANAGEMENT

The Park's natural and cultural resources will be managed according to the administrative policies for resource management in Natural Environment parks.

7.1 Vegetation

A vegetation management plan is required. The Plan will maintain a particular kind and quality of vegetation in a given area in the Park. Zones with vegetation progressing through natural succession will need different management techniques from zones where vegetation is maintained at its present stage of natural succession.

Some management practices will produce small quantities of wood as by-products of selective and dead tree removal. The wood, depending on type and quality, can be used for firewood, sawlogs, posts, or other required items within the Park. By this means, small savings in both maintenance and capital costs may be realized. However, it must be remembered that the main purpose of these management techniques is to maintain or create a particular quality of vegetation and not to generate revenue.

Below is a general description of the type of vegetation cover desired for each zone in the Park.

a) Development Zone

Vegetation cover in the beach, day use and play areas of the Park will be maintained in a park-like setting with a varying aged overstory and replacement trees in a sparse understory.

A mixture of ground cover vegetation and trees will be maintained to screen the maintenance area and sewage lagoon from the park visitor.

The existing vegetation quality will be maintained in the existing and future camping areas. Ground and understory vegetation will be managed to provide and maintain the existing visual buffer for privacy between campsites.

b) Nature Reserve Zone

All the areas designated under this zoning will be allowed to progress through natural succession.

c) Natural Environment Zone

This area designated under this zoning will have a silvicultural program to promote growth of healthy, aesthetically pleasing forest cover similar to that now present.

Natural succession will progress unimpeded. Where safety hazards along trails exist, potentially dangerous trees will be removed in association with 'brushing' operations and routine trail maintenance.

7.2 Wildlife

No hunting will be allowed.

The following restrictions will apply:

1. Only nuisance beaver may be trapped as designated and requested by the Park Superintendent;

2. Where control is needed, techniques having minimal effects on other components of the Park environment will be used.

7.3 Fisheries

A fisheries management plan is needed for Silent Lake Provincial Park. The plan will address such questions: Is the lake capable of supporting a naturally reproducing fishery or will it continue

to rely on a fish stocking program? Should winter fishing be allowed? If so, how much and how can it be regulated?

The plan will be written and remain in effect until the results meet the requirements of the management plan, the Park Superintendent and Bancroft District Office.

7.4 Fire

Normal methods of fire detection and suppression will be carried out to protect the park resources.

7.5 Insects and Disease

Measures for insect and disease control will be permitted, when necessary, to protect visitor health and park values. The Nature Reserve zones will be excluded unless the very values that are being protected by Nature Reserve zoning are being threatened or attacked by insects and/or disease.

7.6 Resource Extraction

No commercial extraction of resources will be permitted within the Park.

7.7 Water

Water quality will be monitored by the Park's present water quality sampling program. Any deterioration in the water quality will be investigated by this Ministry. Appropriate action will be taken to maintain water quality and solve the problem.

8.0 VISITOR SERVICES

Silent Lake is an integral part of a tapestry of life and activity which does not stop at the park boundary. The Park has been visited by Native Indians, farmed, logged, explored for minerals and used for recreation purposes, first as a lodge and then as a Provincial Park.

Silent Lake will be a satellite park to Algonquin Park — the nodal park for this region, and will be operated in accordance with the Park Operating Plan. It also has the resources to illustrate the Trent Valley Lumber and South Shield Agriculture Historic themes, and one can take advantage of the geological features of the area as well as mineral collecting at sites driving distance of the Park.

8.1 Public Information

Every park, Silent Lake included, will provide a basic level of communication. This includes publications (park leaflet, posters), displays (kiosk showing past sites of historical significance) and personal contact by park staff, providing the following to the park visitor:

a) information about the Provincial Park System;

b) information about the Park, its facilities, programs, features, rules and regulations;

c) information on management messages for the protection of the park environment and conduct expected of the park visitor;

d) information on services, facilities and attractions in the local area of the Park;

e) an opportunity for the visitor to communicate thoughts on the Park.

8.2 Interpretation

Interpretive programs such as canoeing and back-country camping will provide visitors opportunities to learn and experience the character and significance of the Park and surrounding area. These programs will be based on natural and cultural features of the park landscape.

Self-use facilities such as trails with trail guides, exhibits and displays at park control offices will be provided.

8.3 Education

While school population with convenient access of the Park is relatively small, desired assistance will be provided to any group leader where practical, compatible with and complimentary to park values.

8.4 Recreation

In keeping with the development concept of a 'threshold wilderness', an introduction to outdoor recreation skills is important. Those of canoeing and back-country camping will be an integral part of the program. When staff, volunteers and recreation clubs skilled in canoeing and cross-country skiing are available, practical introductory courses emphasizing safety and technique will be offered.

8.5 Recreation Management

To maintain the Parks recreational facilities at a high standard of quality, certain management guidelines must be established. Trails, campsites and the beach are three recreation facilities which require attention. The Park Superintendent will identify the guidelines for maintaining these and other facilities and include them in the Operations Plan for the Park.

8.6 Marketing

A marketing plan to attract more visitors to Silent Lake Park throughout is operating seasons will be prepared with the following objectives: to hold present clientele (average length of stay in 1984 2.3 days, up 0.4 since 1980); to attract day users staying at local commercial establishments or using local services; to attract day users from local urban centres and private cottages; to attract campers and day users during low use periods in the midweek (July-August occupancy rate in 1984 - 62 percent, second highest total in 10 years) and shoulder seasons; to increase involvement with the commercial sector by encouraging the park user to avail oneself and take advantage of local tourist services and attractions, and generally stimulate interaction between the Park and the private tourist and commercial sector in the vicinity.

The marketing plan will also incorporate winter day use, applying current information of planning, research and operational/ management functions to attract more visitors. Important objectives would hold present clientele (average length of stay in area 2.5 days, 0.8 days less than Regional average); promote and attract a higher percentage of day users from local urban centre; and enhance Silent Lake's recreational attributes to local tourist accommodations, in hoping lodgings will expand their seasons to include a potential increasing winter market.

9.0 DEVELOPMENT

Development will proceed in accordance with Figure 5 and the following guidelines. In all instances, detailed site plans will be completed and approved in advance of rehabilitation of existing facilities or the development of new facilities. Development projects including the vegetation management plan will be phased according to the Implementation Strategy (Section 11.0) as needed and funding permits. The requirements of the Environmental Assessment Act will be adhered to.

9.1 Day Use Parking

Major redevelopment of the existing day use parking lot is necessary to accommodate the increasing numbers of day users during winter and summer use. The need for additional parking will be considered prior to or in conjunction with any further development of the day use area.

9.2 Picnic and Warm-up Shelter

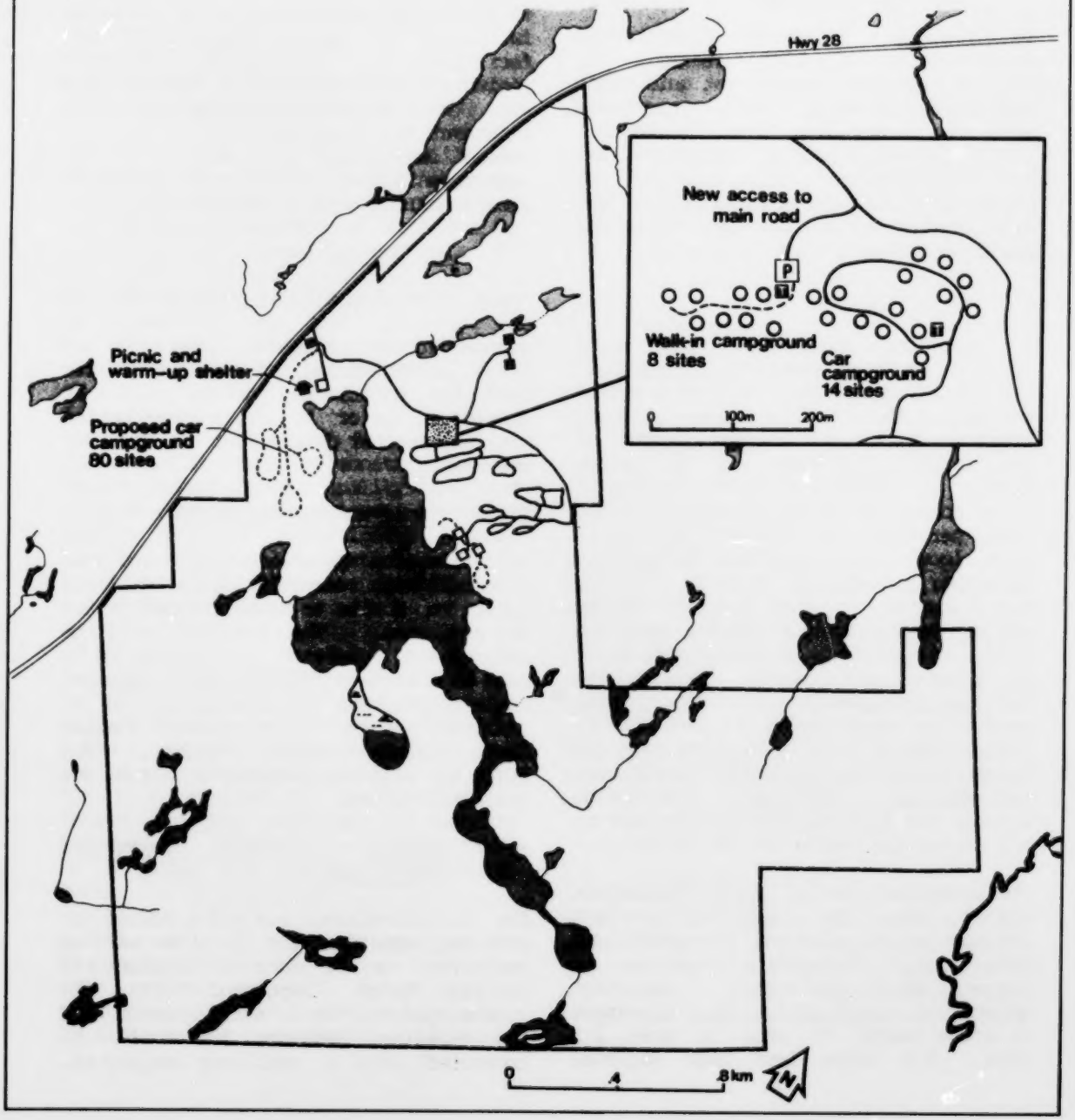
An all-season permanent post and beam structure with removable walls will be built on a site to be determined in the day use area. The building will be secure and insulated well enough to be used as a warm-up facility for skiers and anglers, yet have the flexibility to be utilized as an open air picnic shelter during inclement summer weather. The building will be designed to blend into its surroundings.

9.3 Granite Ridge Campground Redevelopment

Due to inconsistent use and a demand for more car campsites, the 22 site walk-in campsite complex located adjacent to Granite Ridge Campground will be redeveloped. The 14 sites located near the existing parking lot will be converted into a small car campground.

Figure 5

FUTURE DEVELOPMENT



The remaining 8 sites will remain as walk-in campsites with a new service road and parking lot providing access to these campsites from the main park road. The existing parking lot will be removed.

9.4 New Campground Development

A third campground will be developed on the northwest shore of Silent Lake to meet future demands for car camping opportunities. The area will accommodate 80 car-camping sites. Access will be by a new road constructed to the north of the day use area.

Design criteria for this campground will be consistent with guidelines followed in Granite Ridge and Pincer Bay campgrounds. This new campground will contain facilities similar to those in the existing campgrounds: a centrally located comfort station with showers strategically placed vault toilets and water supply facilities.

10.0 IMPLEMENTATION STRATEGY

The Management Plan will be reviewed not less than every 10 years following its approval and as need arises. Data collection and environmental monitoring will be conducted regularly.

Below is a list of projects that have been previously described in this plan. This list appears in chronological order according to the individual project priority. The number of projects to be completed or partially completed will be based upon the availability and allocation of each year's capital funding.

Priority Rating	Project Description
1	Expansion of Day Use Parking
2	Permanent picnic shelter/ warm-up shack in day use area
3	Vegetation Management Plan a) include addition of wetland to Nature Reserve 1
4	Fisheries Management Plan
5	Market Management Plan
6	Redevelopment of Granite Ridge Campground walk-in sites
7	New campground on northwest side of Silent Lake.

11.0 PUBLIC CONSULTATION

A preliminary management plan was written and made available to park visitors, adjacent landowners and local township offices to be reviewed and commented on. Very few comments were received. Most are in agreement of what was being proposed.

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